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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER				
CATTUNGAL, AJAY P				
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4173				
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/589,108

**Applicant(s)**

HUS ET AL.

**Examiner**

AJAY P. CATTUNGAL

**Art Unit**

4173

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 August 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-946)
- 3) ☐ Information Disclosure Statement(s) (PTO/SE-US)
- Paper No(s)/Mail Date \_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_.

## **DETAILED ACTION**

### ***Specification***

1. The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

#### **Arrangement of the Specification**

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

- (a) TITLE OF THE INVENTION.
- (b) CROSS-REFERENCE TO RELATED APPLICATIONS.
- (c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
- (d) THE NAMES OF THE PARTIES TO A JOINT RESEARCH AGREEMENT.
- (e) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC.
- (f) BACKGROUND OF THE INVENTION.
  - (1) Field of the Invention.
  - (2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.
- (g) BRIEF SUMMARY OF THE INVENTION.
- (h) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).
- (i) DETAILED DESCRIPTION OF THE INVENTION.
- (j) CLAIM OR CLAIMS (commencing on a separate sheet).
- (k) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).
- (l) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

The specification is missing section headings.

***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claim 9 rejected under 35 U.S.C. 102(b) as being clearly anticipated by Ohkubo et al. (20030012195).

Re claim 9, Ohkubo et al. disclose a communication station (see Item 11, Fig 2) for use in a multicast transmission system, the communication station comprising: means for receiving data(15 for example); means for determining whether the received data is fully decodable(13 for example); and means responsive to the data not being fully decodable for transmitting a reply signal devoid of an indication of identity of the communication station(14 for example); means responsive to receiving a further signal for transmitting an indication of identity of the communication station (14 for example); means for receiving a retransmission of at least a portion of the data whether addressed to the communication station or whether broadcast(15 for example).

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-6, 7-8, 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ohkubo et al. (20030012195) in view of Rajahalme (20030007499).

Re Claim 1, Ohkubo et al. discloses a method of operating a multicast transmission system (See fig 1) comprising a first station (1 for example Base station); and a plurality of second stations (11 for example Mobile station and claim 1, plurality of mobile stations), the method comprising at the first station, transmitting data(4 for example Transmitter); at each of the second stations, receiving the data( 15 for example Receiver); determining whether the received data is fully decodable( 13 for example Error detection /ARQ Processor); if the data is not fully decodable, transmitting a reply signal( 14 for example Transmitter); and at the first station receiving (5 for example Receiver) the reply signal from at least one of the second stations, and in response to receiving the reply signal, retransmitting at least a portion of the data; further comprising the reply signal being devoid of an indication of the identity of the transmitting second station( paragraph 23, teaches that the mobile station uses spreading code as the retransmission request signal. Spreading code is devoid of an indication of the identity of the transmitting station, instead it uses the identity of the first station to send a reply signal.); Ohkubo et al does not explicitly disclose, at the first station selecting a method for retransmitting the data, between a dedicated mode in which the data is addressed to one of the second stations and a broadcast mode in which the data is broadcast to a plurality of the second stations. However, Rajahalme et al. teaches, at the first station, selecting a method for retransmitting the data, between a dedicated mode(See Fig 2, 2-6) in which the data is

addressed to one of the second stations and a broadcast mode in which the data is broadcast to a plurality of the second stations (see Fig 2, 2-4). Regarding the response to selecting the dedicated mode and prior to the retransmission, transmitting a further signal; at each of the second stations which transmitted the reply signal, in response to receiving the further signal, transmitting an indication of its identity; and at the first station, receiving the indication of identity and employing the indication of identity to address the retransmission to one of the second stations. Note that, in order to send the data in a dedicated mode the first has to send out a signal, requesting the identity of the second station to complete the retransmission. It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the mode selection method by Rajahalme et al. with the method by Ohkubo et al. in order to decongest the bandwidth.

Re claim 2, Note that Rajahalme et al. discloses a method comprising estimating the number of second stations transmitting the reply signal and selecting the mode dependent on the estimate ( see paragraph 16, line 1-4 and 17, line 1-3).

Re claim 5, Note that Ohkubo et al. discloses a method wherein the further signal comprises a positive acknowledgement ( see paragraph 23 line 1, where Ohkubo et al teaches a spreading code is used as a retransmission request signal. A Spreading code method utilizes transmitting data in data packets. The user equipment acknowledges the reception of data packet with an Ack or a Nack signal  $\Delta t$  time after the transmission).

Re claim 7, Ohkubo et al. discloses a communication station for use in a multicast transmission system comprising a plurality of second stations (see Fig 1) the communication station comprising: means for transmitting data (4 for example Transmitter); means for receiving a reply signal (5 for example Receiver) from at least one of the second stations and means responsive to receiving the reply signal for retransmitting at least a portion of the data; a means responsive to selecting the dedicated mode for transmitting a further signal( 4 for example Transmitter); means for receiving an indication of identity transmitted by a second station ( 5 for example Receiver) and means for employing the indication of identity to address the retransmission to one of the second stations ( 3 for example ARQ Processor).

Ohkubo et al. does not explicitly disclose a means for selecting, for retransmitting the data, between a dedicated mode in which the data is addressed to one of the second stations and a broadcast mode in which the data is broadcast to a plurality of the second stations. However, Rajahalme et al teaches about a means for selecting, for retransmitting the data, between a dedicated mode in which the data is addressed to one of the second stations and a broadcast mode in which the data is broadcast to a plurality of the second stations (see Fig2). It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the mode selection system by Rajahalme et al. with the system by Ohkubo et al. in order to decongest the bandwidth.

Re claim 8, Ohkubo et al. discloses a communication station, wherein the second stations are transmitting the reply signal but does not explicitly disclose a means for

selecting the mode is dependent on the estimate of the number of second station requesting retransmission. However, Rajahalme et al. teaches a means for selecting the mode is dependent on the estimate of the number of second station requesting retransmission (See Fig 2). It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the mode selection system by Rajahalme et al. on the system by Ohkubo et al. in order to decongest the bandwidth.

Re Claim 11, Note that Ohkubo et al. discloses a multicast transmission system comprising a first station in accordance claim 7 and a plurality of second stations (see paragraph 17).

6. Claims 3,4,10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ohkubo et al. (20030012195) in view of Rajahalme(20030007499) and further in view of Dent et al (5771288).

Re claim 3 Ohkubo et al. modified by Rajahalme discloses the claimed invention as set forth in claim 1 above. Ohkubo et al modified by Rajahalme does not explicitly disclose a method wherein the reply signal is transmitted in an access slot indicative of a portion of data to be retransmitted. However Dent et al teaches, a method wherein the reply signal is transmitted in an access slot (Time slot) indicative of a portion of data (information signal) to be retransmitted (see column 1, paragraph 6, line 1-3. and Column 3, paragraphs 1, line 2-4 under Summary). It would have been obvious to one having ordinary skill in the art at the time of the invention was made to use the method



by Dent et al. with the method by Ohkubo et al. modified by Rajahalme in order to decongest the bandwidth.

Re claim 4, Ohkubo et al. in view of Rajahalme discloses the claimed invention as set forth in claim 1 above. Ohkubo et al modified by Rajahalme does not explicitly disclose a method wherein the reply signal comprises a signature indicative of a portion of data to be retransmitted. However Dent et al. teaches a method wherein the reply signal comprises a signature indicative of a portion of data (information signal) to be retransmitted (see column 3, paragraphs 1, and line 2-4 under Summary). It would have been obvious to one having ordinary skill in the art at the time of the invention was made to use the method by Dent et al. with the method by Ohkubo et al. modified by Rajahalme in order to decongest the bandwidth.

7. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ohkubo et al.(20030012195) in view of Rajahalme (20030007499), and further in view of Choi et al. (20010053140).

Re claim 6, Ohkubo et al. in view of Rajahalme substantially discloses the claimed invention as set forth in claim 1 above. Ohkubo et al modified by Rajahalme does not explicitly disclose a method wherein the transmitted indication of identity comprises a message transmitted on a random access channel having an access service class (ASC) different from the ASC of the reply signal. However Choi et al. discloses a method wherein the transmitted indication of identity comprises a message transmitted on a random access channel having an access service class (ASC) different from the ASC of the reply signal (See paragraph 6). It would have been obvious to one

having ordinary skill in the art at the time of the invention was made to use the method by Choi et al. with the method by Ohkubo et al. modified by Rajahalme in order to decongest the bandwidth.

8. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ohkubo et al.(20030012195) in view of Dent et al. (5771288)

Re claim 10, Ohkubo et al. discloses the claimed invention as set forth in claim 9 above. Ohkubo et al. does not explicitly disclose a communication station, wherein the means for transmitting the reply signal is adapted to indicate a portion of the data for which retransmission is requested by selection from a plurality of at least one of a time slot and a signature. However Dent et al. teaches a communication station, wherein the means for transmitting the reply signal is adapted to indicate a portion of the data for which retransmission is requested by selection from a plurality of at least one of a time slot and a signature. (Column 1, paragraph 6, line 1-3 and column 3, paragraphs 1, line 2-4). It would have been obvious to one having ordinary skill in the art at the time of the invention was made to use the system by Dent et al. with the system by Ohkubo et al. in order to decongest the bandwidth.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ajay P. Cattungal whose telephone number is 571-270-7525. The examiner can normally be reached on M – F at 8:00AM-5:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jinhee J. Lee can be reached on 571-272-1977. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private Pair system, contact the Electronic Business Center (EBC) at 866-271-9197 (toll-free).

/Jinhee J Lee/

Supervisory Patent Examiner, Art Unit 4173